

| | | Michigan Course/Credit Requirement | | | | | |
|--|--|---|----------------------------|--|----------------------------|--|-------------------|
| Michigan HSCE | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/STEM | |
| STRAND 1: QUANTITATIVE LITERACY AND LOGIC | | | | | | | |
| L1 REASONING ABOUT NUMBERS, SYSTEMS, AND QUANTITATIVE SITUATIONS (13) | | | | | | | |
| L1.1 Number Systems and Number Sense | N.RN.3, | | | | | | |
| L1.2 Representation and Relationships | S.ID.1, S.ID.5 | N.VM.1, N.VM.2, N.VM.4, N.VM.3 | A.SSE.1 | | | N.VM.1, N.VM.2, N.VM.3, N.VM.4, | |
| L1.3 Counting and Probabilistic Reasoning | | | A.APR.5 S.CP.1, | S.CP.1, S.CP.2, S.CP.3, | | | A.APR.5 |
| L2 CALCULATION, ALGORITHMS, AND ESTIMATION (13) | | | | | | | |
| L2.1 Calculation Using Real and Complex Numbers | N.RN.1, N.RN.2, N.CN.1, S.MD.2, | | | N.RN.1, N.RN.2, N.CN.2, N.CN.3, | | | N.CN.2, N.CN.3 |
| L2.2 Sequences and Iteration | | | F.BF.2, F.LE.2, | MI L2.2.4* and A.SSE.4 | | | |
| L2.3 Measurement Units, Calculations, and Scales | | | N.Q.2 G.MG.2 | F.IF.7 | | | |
| L2.4 Understanding Error | | | | | N.Q.4 S.IC.4 | | |
| L3 MATHEMATICAL REASONING, LOGIC, AND PROOF | | | | | | | |
| L3.1 Mathematical Reasoning | | | Mathematical Practice 3 | | | | |
| L3.2 Language and Laws of Logic | | | Mathematical Practice 3 | | | | |
| L3.3 Proof | | | Mathematical | | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|---|--|--|-------|---|--------------------|---------------------|----------|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/STEM |
| | | Practice 3 G.CO.9, G.CO.10, G.CO.11, G.GPE.4 | | | | | |
| STRAND 2 ALGEBRA AND FUNCTIONS | | | | | | | |
| A1 EXPRESSIONS, EQUATIONS, AND INEQUALITIES (16) | | | | | | | |
| A1.1 Construction, Interpretation, and Manipulation of Expressions | | A.SSE.1, A.SSE.3, A.APR.1, A.APR.4, | | A.SSE.1, A.SSE.3, A.APR.1, A.APR.2, A.APR.6, A.APR.7 | | | A.APR.7 |
| A1.2 Solutions of Equations and Inequalities | | N.Q.2, N.CN.7, A.SSE.3, A.CED.2, A.CED.3, A.CED.4, A.REI.1, A.REI.2, A.REI.3, A.REI.4, A.REI.5, A.REI.6, A.REI.7, A.REI.12, | | N.Q.2, A.CED.2, A.CED.3, A.CED.4, A.REI.1, A.REI.2, A.REI.4 | F.TF.6, F.TF.7 | | |
| A2 FUNCTIONS (16) | | | | | | | |
| A2.1 Definitions, Representations, and Attributes of Functions | | A.REI.10, A.REI.11, A.REI.12, F.IF.1, | | A.REI.10, A.REI.11, F.IF.1 F.IF.2, | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|---|--|--|-------|--|--------------------|--|-----------------|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/STEM |
| | | F.IF.2, F.IF.8, F.IF.4, F.IF.5, F.IF.6, F.IF.7, F.IF.9, F.BF.2, F.BF.1 | | F.IF.3, F.IF.4, F.IF.5, F.IF.6, F.IF.7, F.IF.8, F.IF.9, F.BF.2, A.BF.1 | | | |
| A2.2 Operations and Transformations | | A.SSE.2, F.IF.8, F.BF.1, F.BF.3, <i>F.BF.4</i> | | A.SSE.1, A.SSE.2, F.BF.1, F.BF.3, <i>F.BF.4</i> | | MI A2.2.4*, A2.2.5*, A.2.2.6* and <i>F.BF.4</i> | <i>F.BF.4</i> , |
| A2.3 Representations of Functions | | F.LE.1, F.LE.2, F.LE.3, F.LE.5 | | F.LE.2, F.LE.4 | | | |
| A2.4 Models of Real-world Situations Using Families of Functions | | A.CED.1, A.CED.3, F.IF.8, F.LE.1, F.LE.5 | | A.CED.1, A.CED.3, | | | |
| A3 FAMILIES OF FUNCTIONS (27) | | | | | | | |
| A3.1 Lines and Linear Functions | | A.CED.1, F.IF.7, F.LE.1, F.LE.2, F.LE.3, F.LE.5, G.GPE.5, | | | | | |
| A3.2 Exponential and Logarithmic Functions | | A.CED.1, F.LE.1, F.LE.2, | | A.REI.11 F.IF.7, F.LE.4, | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|---|---|------------------------------------|--|--|-------------------------------------|---------------------|--|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/STEM |
| | F.LE.3, F.LE.5 | | | | | | |
| A3.3 Quadratic Functions | <i>N.CN.8</i> A.CED.1, A.REI.4, F.IF.7, F.IF.8, F.BF.1, F.BF.5, F.LE.3 | | | | | | <i>N.CN.8</i> |
| A3.4 Power Functions | F.IF.7, F.BF.4 | | | | | | |
| A3.5 Polynomial Functions | <i>N.CN.9</i> A.APR.3, A.APR.4, A.REI.11 F.IF.7, F.LE.3 | | | | | | |
| A3.6 Rational Functions | | | <i>F.IF.7d</i> , A.CED.1, A.REI.2, A.REI.11 | | | | <i>F.IF.7d</i> |
| A3.7 Trigonometric Functions | | | | <i>F.IF.7</i> , <i>F.TF.1</i> , <i>F.TF.2</i> , <i>F.TF.3</i> , <i>F.TF.4</i> , <i>F.TF.5</i> , <i>F.TF.6</i> , <i>F.TF.7</i> | MI HSCE A1.1.7 and <i>F.TF.8</i> | | <i>A.TF.3</i> , <i>A.TF.4</i> , <i>A.TF.6</i> , <i>A.TF.7</i> |
| STRAND 3 GEOMETRY AND TRIGONOMETRY | | | | | | | |
| G1 FIGURES AND THEIR PROPERTIES (29) | | | | | | | |
| G1.1 Lines and Angles; Basic | | <i>G.CO.1</i> | | | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|---|-----------|--|---|--------------------|---------------------|-----------------------------------|--|
| Michigan HSCE | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/ STEM | |
| Euclidean and Coordinate Geometry | | G.CO.9, G.CO.10, G.CO.12 | | | | | |
| G1.2 Triangles and Their Properties | | G.CO.10, G.SRT.4, G.GPE.7, | | | | | |
| G1.3 Triangles and Trigonometry | | G.CO.5, G.SRT.6, G.SRT.7, G.SRT.8, G.SRT.9, G.SRT.10, G.SRT.11 | | | | G.SRT.9, G.SRT.10, G.SRT.11 | |
| G1.4 Quadrilaterals and Their Properties | | G.CO.11, G.GPE.7, G.GPE.4, | | | | G.GPE.14, | |
| G1.5 Other Polygons and Their Properties | | G.GPE.7, G.GMD.1, | | | | | |
| G1.6 Circles and Their Properties | | G.CO.1, G.C.1, G.C.2, G.C.3, G.C.5, | | | | | |
| G1.7 Conic Sections and Their Properties | | | G.GPE.1, G.GPE.2, G.GPE.3, G.GPE.4 | | | G.GPE.3, | |
| G1.8 Three- Dimensional Figures | | G.GMD.2, G.GMD.3, G.MG.1 | | | | | |
| G2 RELATIONSHIPS BETWEEN FIGURES (10) | | | | | | | |
| G2.1 Relationships Between Area and Volume Formulas | | G.GMD.1, G.GMD.2, G.GMD.3 | | | | | |
| G2.2 Relationships Between Two-dimensional and Three-dimensional | | G.GMD.1, G.GMD.4, | | | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|--|--|------------------------------------|---|------------------------------|--------------------|---------------------|----------|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/STEM |
| Representations | | | | | | | |
| G2.3 Congruence and Similarity | | | G.CO.7, G.CO.8, G.CO.10, G.SRT.2, G.SRT.3, G.SRT.4, G.SRT.5, G.GPE.4 | | | | |
| G3 TRANSFORMATIONS OF FIGURES IN THE PLANE (5) | | | | | | | |
| G3.1 Distance-preserving Transformations: Isometries | | | G.CO.3, G.CO.4, G.CO.5, G.CO.6, G.CO.7, G.CO.8, G.SRT.1, G.SRT.2 | | | | |
| G3.2 Shape-preserving Transformations: Dilations and Isometries | | | G.CO.2, G.CO.5, G.SRT.1, G.SRT.2 | | | | |
| STRAND 4: STATISTICS AND PROBABILITY | | | | | | | |
| S1 UNIVARIATE DATA – EXAMINING DISTRIBUTIONS (9) | | | | | | | |
| S1.1 Producing and Interpreting Plots | | | | N.Q.2, S.ID.1 | S.ID.2, S.ID.3 | | |
| S1.2 Measures of Center and Variation | | | | S.ID.1, S.ID.4, S.MD.1 | S.ID.1 | | |
| S1.3 The Normal Distribution | | | | | S.ID.4 | | |
| S2 BIVARIATE DATA – EXAMINING | | | | | | | |

| | | Michigan Course/Credit Requirement | | | | | |
|---|---|------------------------------------|-------|---|-----------------------------------|---------------------|--|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/ STEM |
| RELATIONSHIPS (6) | | | | | | | |
| S2.1 Scatterplots and Correlation | S.ID.5, S.ID.6, S.ID.8, S.ID.9 | | | | | | |
| S2.2 Linear Regression | S.ID.6, S.ID.7, | | | | | | |
| S3 SAMPLES, SURVEYS, AND EXPERIMENTS (3) | | | | | | | |
| S3.1 Data Collection and Analysis | | | | S.MD.7, S.IC.1, S.IC.2, S.IC.3, S.IC.4, S.IC.5, S.IC.6 | | | S.MD.7, |
| S4 PROBABILITY MODELS AND PROBABILITY CALCULATION (4) | | | | | | | |
| S4.1 Probability | | | | S.CP.7, S.CP.8, S.CP.2 S.CP.9, S.IC.2, S.IC.6, S.CP.1, S.CP.2, S.CP.3, S.CP.4, S.CP.5, S.CP.6, S.CP.8 | MI S4.1.3* and S.IC.5, S.MD.7, | | S.CP.8, S.CP.9, |
| S4.2 Application and Representation | | | | S.MD.1, S.IC.2, S.IC.6, S.CP.5, | | | S.MD.1, S.MD.4, S.MD.5, S.MD.6, |

| | | Michigan Course/Credit Requirement | | | | | |
|---------------|--|------------------------------------|-------|--------------------|---|------------------------|-----------|
| Michigan HSCE | | Algebra I | Geom. | Alg. II (09/09) | Alg. II (11/07) | Recommended HSCE 06 | CCR/ STEM |
| | | | | | S.CP.4, S.CP.6 S.CP.1, S.CP.8, S.CP.9, S.MD.4, S.MD.5, S.MD.6, S.MD.7 | | S.MD.7 |
| | | | | | | | |